

ABSTRACT

The invention herein is directed to a dual-chamber combustion laser assembly having lighter weight (per unit flow area), a more compact, flexible configuration for packaging in spacecraft, aircraft, or ground mobile vehicles, higher mass efficiency from lower heat loss and proven power extraction efficiency of linear lasers, superior output beam quality by incremental compensation of gain medium optical path disturbances and by reduction in time-dependent variations in structural and gain medium characteristics, lower cost and shorter fabrication time for modular dual flow laser and linear optics, more efficient pressure recovery with side-wall isolation nozzles and compact diffuser configurations, and increased small signal gains for more efficient extraction of overtone power.

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